

# Hydrology Investigation

## Data Work Sheet

School name: \_\_\_\_\_

Student group: \_\_\_\_\_

Site Name: \_\_\_\_\_

Sample collection date: \_\_\_\_\_ time: \_\_\_\_\_ (hours and minutes) check one: UT\_\_\_\_ Local \_\_\_\_

### **Transparency**

Cloud cover (check one): \_\_\_\_ clear \_\_\_\_ scattered \_\_\_\_ broken \_\_\_\_ overcast

Secchi Disk:

Observer 1: Length of rope: when disk disappears: \_\_\_\_\_ m when disk reappears: \_\_\_\_\_ m

Distance from where the Observer 1 marked the rope to the Water Surface: \_\_\_\_\_ m

Observer 2: Length of rope: when disk disappears: \_\_\_\_\_ m when disk reappears: \_\_\_\_\_ m

Distance from where the Observer 2 marked the rope to the Water Surface: \_\_\_\_\_ m

Observer 3: Length of rope: when disk disappears: \_\_\_\_\_ m when disk reappears: \_\_\_\_\_ m

Distance from where the Observer 3 marked the rope to the Water Surface: \_\_\_\_\_ m

Turbidity Tube:

Water line in tube when image disappears:

Observer 1: \_\_\_\_\_ cm

Observer 2: \_\_\_\_\_ cm

Observer 3: \_\_\_\_\_ cm

### **Water Temperature**

Observer 1: \_\_\_\_\_ °C Observer 2: \_\_\_\_\_ °C Observer 3: \_\_\_\_\_ °C Average: \_\_\_\_\_ °C

### **Dissolved Oxygen**

Observer 1: \_\_\_\_\_ mg/L Observer 2: \_\_\_\_\_ mg/L Observer 3: \_\_\_\_\_ mg/L Average: \_\_\_\_\_ mg/L

Kit manufacturer and model: \_\_\_\_\_

### **pH**

Measurement method: \_\_\_\_ paper \_\_\_\_ pen \_\_\_\_ meter

Value of buffers at site: pH 4: \_\_\_\_\_ pH 7: \_\_\_\_\_ pH 10: \_\_\_\_\_

Observer 1: \_\_\_\_\_ Observer 2: \_\_\_\_\_ Observer 3: \_\_\_\_\_ Average: \_\_\_\_\_

### **Conductivity**

Conductivity Standard: \_\_\_\_\_ MicroSiemens/cm ( $\mu\text{S}/\text{cm}$ )

Observer 1: \_\_\_\_\_  $\mu\text{S}/\text{cm}$  Observer 2: \_\_\_\_\_  $\mu\text{S}/\text{cm}$  Observer 3: \_\_\_\_\_  $\mu\text{S}/\text{cm}$  Average: \_\_\_\_\_  $\mu\text{S}/\text{cm}$

## Data Work Sheet (page 2)

### Salinity

Tide Information

Time of tide before measurement: \_\_\_\_\_ hours and minutes

Check one: High Tide \_\_\_\_ Low Tide \_\_\_\_ Check one: UT \_\_\_\_ Local time \_\_\_\_

Time of tide after measurement: \_\_\_\_\_ hours and minutes

Check one: High Tide \_\_\_\_ Low Tide \_\_\_\_ Check one: UT \_\_\_\_ Local time \_\_\_\_

Place where these tides occur: \_\_\_\_\_

Salinity (Hydrometer Method)

	Observer 1	Observer 2	Observer 3
Temperature of water in the cylinder:	_____ °C	_____ °C	_____ °C
Specific Gravity:	_____	_____	_____
Salinity of Sample:	_____ ppt	_____ ppt	_____ ppt
Average Salinity:	_____ ppt		

Optional Salinity Titration

Salinity of Sample: Observer 1: \_\_\_\_\_ ppt Observer 2: \_\_\_\_\_ ppt Observer 3: \_\_\_\_\_ ppt

Average Salinity: \_\_\_\_\_ ppt

Kit manufacturer and model: \_\_\_\_\_

### Alkalinity

For kits that read alkalinity directly

Observer 1: \_\_\_\_\_ mg/L as  $\text{CaCO}_3$  Observer 2: \_\_\_\_\_ mg/L as  $\text{CaCO}_3$  Observer 3: \_\_\_\_\_ mg/L as  $\text{CaCO}_3$

Average: \_\_\_\_\_ mg/L as  $\text{CaCO}_3$

Hach kits or other kits in which drops are counted:

	Observer 1	Observer 2	Observer 3	Average
Number of drops	_____ drops	_____ drops	_____ drops	_____ drops
Conversion constant				
for your kit and protocol:	x _____	x _____	x _____	x _____

Total Alkalinity (mg/L as  $\text{CaCO}_3$ ) = \_\_\_\_\_ mg/L = \_\_\_\_\_ mg/L = \_\_\_\_\_ mg/L = \_\_\_\_\_ mg/L

Kit manufacturer and model: \_\_\_\_\_

### Nitrate

Observer 1: \_\_\_\_\_ mg/L  $\text{NO}_3^- - \text{N} + \text{NO}_2^- - \text{N}$  \_\_\_\_\_ mg/L  $\text{NO}_2^- - \text{N}$

Observer 2: \_\_\_\_\_ mg/L  $\text{NO}_3^- - \text{N} + \text{NO}_2^- - \text{N}$  \_\_\_\_\_ mg/L  $\text{NO}_2^- - \text{N}$

Observer 3: \_\_\_\_\_ mg/L  $\text{NO}_3^- - \text{N} + \text{NO}_2^- - \text{N}$  \_\_\_\_\_ mg/L  $\text{NO}_2^- - \text{N}$

Average: \_\_\_\_\_ mg/L  $\text{NO}_3^- - \text{N} + \text{NO}_2^- - \text{N}$  \_\_\_\_\_ mg/L  $\text{NO}_2^- - \text{N}$

Kit manufacturer and model: \_\_\_\_\_